



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/566,363

08/29/2006

Chihiro Sawada

126817

3484

25944 7590 02/05/2010

OLIFF & BERRIDGE, PLC

P.O. BOX 320850

ALEXANDRIA, VA 22320-4850

EXAMINER

KNABLE, GEOFFREY L

ART UNIT

PAPER NUMBER

1791

NOTIFICATION DATE

DELIVERY MODE

02/05/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

OfficeAction25944@oliff.com

jarmstrong@oliff.com

Office Action Summary	Application No. 10/566,363	Applicant(s) SAWADA ET AL.	
	Examiner Geoffrey L. Knable	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) 3 and 4 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>1/30/06; 10/25/06</u> . | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1791

1. Applicant's election with traverse of species II (embodiment of figs. 7-12; claims 1, 2 5) in the reply filed on 10/30/2009 is acknowledged. The traversal is on the ground(s) that the search and examination of the entire application can be made without serious burden as the search for one species would encompass a search for the other species. This is not found persuasive because a means/mechanism controlling *inclination* of bead clamp portions represents a significantly different device from one controlling *eccentricity* of the bead clamp portions, such thereby presenting a serious burden to search and examine both in the same application, there being no indication or suggestion or admission that one of the species would have been obvious over the other if the other is found to be known.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 3 and 4 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 10/30/2009.

3. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 5, lines 5-8 are indefinite and confusing. The phrase "harmonic component of a radial run-out waveform toroidal carcass body" is awkward and confusing - it seems that some wording may be missing. Also, it is not clear what "generates" the deviation, the formula or the harmonic component or the carcass body.

Art Unit: 1791

Also, it is not entirely clear from this language what the output of this formula is - i.e. the deviation or the harmonic, this being arguably ambiguous as it is not clear what is contemplated by the term "presuming" in this context.

In claim 5, lines 13+, it is not entirely clear which "tire" and/or "carcass body" is being referenced since the claim refers to apparently building a tire and "subsequent building of a tire" (e.g. it is not clear which "carcass band" is being referenced at lines 19 and 21). This also makes it difficult to determine exactly how many tires are required to be built following the claimed method (e.g. is "subsequent building of a tire" required by this method?).

In the last line of claim 5, it is not clear if setting of the bead cores is a required step in the method since the step of "changing the relative position or relative angle" alone would not be a step of "setting." If so, this should be more clearly set forth.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 5 is rejected under 35 U.S.C. 102(b) as being anticipated by WO

03/045675.

WO '675 (equivalent US 2005/0142238 will be used as effectively a translation of this document; all further references will be to this equivalent publication) discloses a method that is considered to clearly satisfy claim 5 (e.g. see claim 1 of this publication), it being emphasized that the claimed step of "measuring a radial run-out of the toroidal carcass body" is satisfied by the step of measuring radial runout of the green tire as disclosed by WO '675 since a green tire is a toroidal carcass body.

7. Claim 1 rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Enders (US 4,343,671).

Enders discloses a tire building machine including a building drum with radially expandable bead locks (which would cause radial expansion of an axial portion of the carcass against the bead cores) and a bead core transfer device (bead setter) adapted to apply beads to a drum where the bead setters are configured such that they are adjustable or movable such that they are capable of inclining an axis of the bead clamps relative to the axis of the drum – note especially col. 7, lines 41-51 and fig. 1 which suggest an omnidirectional adjustment capability that adjusts the axis of the clamps. The screws "194" in particular (e.g. fig. 1) would provide this ability to adjust the inclination as claimed, this adjustment mechanism therefore satisfying the claimed requirement for an "inclination control mechanism". It is stressed that this "inclination control mechanism," read in light of the original disclosure, is only in reference to the mechanical components of the setter that actually allows adjustment of the bead axis and is not inclusive of for example a control computer, etc. The reference mechanism

Art Unit: 1791

can control the inclination by a required angle calculated in any manner, the device or means to effect this calculation are not part of the claim.

As to the band drum rotation angle control means, as would have been implicit or certainly obvious in the Enders machine, the drum would be rotatable by a controlled motor that could be stopped and started as desired (for component application, stitching, etc.) and thus is or certainly should be capable of rotation by a desired angle. The claim requires nothing more. The typical start/stop control of drum rotation for component application/stitching that is implicit or certainly obvious from the Enders disclosure would therefore satisfy the claimed requirement for a band drum rotation angle control means.

A tire building machine as required by claim 1 is therefore anticipated or obvious from the Enders disclosure.

8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Enders (US 4,343,671) as applied to claim 1 above, and further in view of at least one of [Yamamori et al. (US 5,273,600) and Ishii (US 4,596,617)].

As to including a forming drum to receive a transferred carcass band, Enders specifically suggests applicability of the claimed bead setting to a first stage machine in which case the carcass band would be transferred to a second stage machine for shaping/stitching (e.g. col. 10, line 60 - col. 11, line 6). A shaping or forming drum as claimed is therefore contemplated. As to forming drum rotation angle control means that would have the capability to rotate in a reverse direction, in view of Yamamori et al. (e.g. col. 8, lines 63+) and Ishii (e.g. col. 4, lines 6-11), it is known to be desirable to

Art Unit: 1791

provide a tire drum rotation control means with a capability to rotate in either direction to enable appropriate pressing of the components (or the joint thereof) to the drum. To provide such two direction rotation control capability would therefore have been obvious and would satisfy the claim 2 requirement.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kunsch et al. (US 2003/0010105) discloses achieving dimensional tire non-uniformities by offsetting the runout from the tire axis by various methods including *inclining the bead setters a few degrees* (paragraph [0192] and fig. 9B). It however is not entirely clear that this reference is referencing typical bead setters used to apply the bead to a drum given the reference to "bead setters in the tire mold" (e.g. claim 8) and thus this reference is at present no more relevant than the applied prior art. This reference also effects this inclining to purposefully add dimensional non-uniformities to the overall tire and therefore would not suggest or render obvious the claimed method in which the deviation of the bead positions is obtained by backward calculation to achieve that causing an inversed waveform of the primary harmonic as claimed.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey L. Knable whose telephone number is 571-272-1220. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1791

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Geoffrey L. Knable/
Primary Examiner, Art Unit 1791

G. Knable
February 1, 2010